CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.02/ANR/CSR-08/109j/CEMENT/2016-17 Date: 05.08.2016

TEST REPORT ON CEMENT

* CUSTOMER	:	**Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
*AGENCY	:	**Mr. Adinarayana Reddy,** Adi Electrical, Bhadranna Layout, Maruthinagara, Kogilu Road, Bangalore – 64.
*NAME OF THE WORK	:	Construction of Culverts at Village area in Ward No.02, Yelahanka Sub Division, BBMP, Bangalore.
*REFERENCE	:	EE(YNK.D)/E-PMT-01/W.O/15/2015-16 Dated: 24.02.2016
SAMPLE ID	:	Cement
SAMPLE RECEIVED ON	:	03.08.2016
PERIOD OF TESTING	:	03.08.2016 to 05.08.2016

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	30.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	145 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	485 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

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⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

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AEE

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Job No.: CTCE/BBMP/W.No.02/ANR/CSR-08/109j/SAND-Gradation/2016-17 : 05.08.2016

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. Adinarayana Reddy,**
Adi Electrical, Bhadranna Layout, Maruthinagara, Kogilu Road, Bangalore – 64.

*** Name of Work** : Construction of Culverts at Village area in Ward No.02, Yelahanka Sub Division, BBMP, Bangalore.

Reference : EE(YNK.D)/E-PMT-01/W.O/15/2015-16 Dated: 24.02.2016

Technical Reference : IS : 2386 Part 1 - 1963 RA-2007

Sample ID : Fine Aggregates

Sample Received on : 03.08.2016

Date of Testing : 05.08.2016

Total Wt. of Aggregates in gms **1000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	96.00	90-100	90-100	90-100	95-100
2.36	77.00	60-95	75-100	85-100	95-100
1.18	54.50	30-70	55-90	75-100	90-100
600 Micron	24.70	15-34	35-59	60-79	80-100
300 Micron	12.10	5-20	8-30	12-40	15-50
150 Micron	5.10	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

Remarks : This sample is under Zone-I specific limits.

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Job No.: CTCE/BBMP/W.No.02/ANR/CSR-08/109j/AGG/GR/2016-17 : 05.08.2016

TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

* Customer	: **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
* Agency	: **Mr. Adinarayana Reddy,** Adi Electrical, Bhadranna Layout, Maruthinagara, Kogilu Road, Bangalore – 64.
* Name of Work	: Construction of Culverts at Village area in Ward No.02, Yelahanka Sub Division, BBMP, Bangalore.
Reference	: EE(YNK.D)/E-PMT-01/W.O/15/2015-16 Dated: 24.02.2016
Technical Reference	: IS : 2386 Part 1 -1963 RA-2007
Sample ID	: Coarse Aggregates (40mm)
Sample Received on	: 03.08.2016
Date of Testing	: 05.08.2016

Total Wt. of Aggregates in gms= 5000

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	97.80	95-100	85-100
20	32.80	30-70	0-20
10	12.76	10-35	0-5
4.75	2.24	0-5	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits.

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Job No.: CTCE/BBMP/W.No.02/ANR/CSR-08/109j/AGG/GR/2016-17 : 05.08.2016

TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

*** Agency** : **Mr. Adinarayana Reddy,**
Adi Electrical, Bhadranna Layout, Maruthinagara, Kogilu Road, Bangalore – 64.

*** Name of Work** : Construction of Culverts at Village area in Ward No.02, Yelahanka Sub Division, BBMP, Bangalore.

*** Reference** : EE(YNK.D)/E-PMT-01/W.O/15/2015-16 Dated: 24.02.2016

Technical Reference : IS : 2386 Part 1 -1963 RA-2007

Sample ID : Coarse Aggregates (20mm)

Sample Received on : 03.08.2016

Date of Testing : 05.08.2016

Total Wt. of Aggregates in gms= **5000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS :383-1970 (RA- 2007)	
		Graded	Single Sized
40	100	100	100
20	97.44	95-100	85-100
10	32.40	25-55	0-20
4.75	7.40	0-10	0-5

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits

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Job No: CTCE/BBMP/W.No.02/ANR /STEEL/2016-17 08.08.2016

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
Agency	:	**Mr. Adinarayana Reddy,** Adi Electrical, Bhadranna Layout, Maruthinagara, Kogilu Road, Bangalore – 64.
Name of the Work	:	Construction of Culverts at Village area in Ward No.02, Yelahanka Sub Division, BBMP, Bangalore.
Reference	:	EE(YNK.D)/E-PMT-01/W.O/15/2015-16 Dated: 24.02.2016
Date of Test	:	08.08.2016
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	8	0.40	510	552	13.10	O.K	O.K

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Job No: CTCE/BBMP/W.No.02/ANR /STEEL/2016-17 08.08.2016

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
Agency	:	**Mr. Adinarayana Reddy,** Adi Electrical, Bhadranna Layout, Maruthinagara, Kogilu Road, Bangalore – 64.
Name of the Work	:	Construction of Culverts at Village area in Ward No.02, Yelahanka Sub Division, BBMP, Bangalore.
Reference	:	EE(YNK.D)/E-PMT-01/W.O/15/2015-16 Dated: 24.02.2016
Date of Test	:	08.08.2016
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	10	0.62	513	556	13.25	O.K	O.K

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Job No.: CTCE/BBMP/W.No.02/ANR/CSR-08/109j/CUBE/2016-17

13.09.2016

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* **Customer** : **Asst. Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.

* **Agency** : **Mr. Adinarayana Reddy,**
Adi Electrical, Bhadranna Layout, Maruthinagara, Kogilu Road, Bangalore – 64.

* **Name of the work** : Construction of Culverts at Village area in Ward No.02, Yelahanka Sub Division, BBMP, Bangalore.

* **Reference** : EE(YNK.D)/E-PMT-01/W.O/15/2015-16 Dated: 24.02.2016

* **Sample ID** : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

* **Grade of Concrete** : M_{20}

Compressive Strength as on : 28th day

Sample Received on : 13.09.2016

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	16.08.2016	13.09.2016	8.113	475.5	21.13
2	16.08.2016	13.09.2016	8.259	509.6	22.65
3	16.08.2016	13.09.2016	8.326	529.8	23.55

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